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## JOURNAL

OF THE

# American Geographical Society

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M.DCCC.LXXXI.



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#### FELLOWS.

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Date of Election.	Date of Election.
1859 Arnoux, William H.	1874 Arnold, Richard.
1859 Arnold, David H. (L. F.)	1874 Allen, Henry Wilder.
1859 Aymar, William. (L. F.)	1874 Amy, Henry.
1860 Acton, Thomas C.	1874 Agnew, Alexander McL.
1869 Auchmuty, Richard Tylden.	1874 Astor, W. W. (L. F.)
1871 Atterbury, Rev. Wm. W., D.D.	1874 Appleton, D. S.
1872 Allen, Horatio M.	1874 Anderson, Henry H.
1873 Albert, Halpern.	1874 Alsop, William.
1874 Alexander, Junius B.	1875 Amsinck, Gustav.
1874 Arthur, Gen. Chester Λ.	1876 Appleton, Nathan.
1874 Aufermann, August.	1878 Austin, Chas. P.
1874 Auchincloss, Henry B.	1879 Austin, William.
1874 Acker, David D.	1879 Astoin, Felix.
1874 Avery, Samuel P.	1879 Agostini, Joseph.
1874 Agnew, John T. (L. F.)	1879 Agnew, Cornelius R., M.D.
	• ,

xxii Fellows.

1879	Ashley, Lucien S.	1874 Bates, Levi M.
	Astor, John Jacob (L. F.)	1874 Barnes, John S.
	Anthony, James L.	1874 Barbour, Thomas. (L. F.)
	Andrews, John R.	1874 Bonner, Robert.
	Abbett, Leon.	1874 Bonn, William B.
	Allen, Eben S.	1874 Barnard, Horace.
	Armour, Herman O. (L. F.)	1874 Barnard, F. A. P., LL.D.
	Andrews, Henry C.	1874 Benjamin, John.
1001	marcus, nemy o,	1874 Butler, Wm. Allen.
1959	Banaroft Gaorge (I. F.)	1874 Bartow, Morey H.
	Bancroft, George. (L. F.)	1874 Barr, William.
	Barney, Hiram. (L. F.)	
	Brown, James M.	1874 Budding, Milo M.
	Butler, Charles.	1874 Buckley, Rev. Jas. M.
	Baker, Francis. (L. F.)	1874 Bookstaver, Henry W.
	Berry, Richard.	1874 Brownson, Lieut. W. H., U. S. N.
1856	Brevoort, J. Carson.	1875 Barney, Charles T.
1859	Brown, James. (L. F.)	1875 Beaman, Charles C., Jr.
1859	Boorman, J. Marcus. (L. F.)	1875 Bernheimer, J. A.
1859	Bernheimer, Isaac.	1875 Beckwith, Leonard F.
1859	Belmont, August. (L. F.)	1875 Benjamin, E. B.
1859	Barlow, S. L. M.	1875 Beekman, Gerard.
1861	Butterfield, Gen. Daniel.	1875 Babcock, Gen. O. E., U. S. Army.
1865	Banvard, John. (L. F.)	1875 Brownell, Silas B.
1868	Banks, David.	1875 Burgess, William J.
	Beckwith, N. M.	1875 Brown, Vernon H.
	Bennett, James Gordon.	1875 Barnes, William.
	Bernheimer, Adolph.	1875 Beste, Henry.
	Bernheimer, Simon.	1875 Bredt, Ernest.
	Brady, John R.	1875 Bedle, Joseph D.
	Bailey, Jas. Muhlenberg. (L. F.)	
	Banyer, Goldsboro.	1875 Bowie, Augustus J., Jr.
	Bickmore, Prof. A. S.	1876 Banks, James L., M. D.
	Bierstadt, Albert.	1876 Baldwin, Commodore Charles H.,
	Butler, Cyrus.	U. S. N.
	Botta, Prof. Vincenzo.	1876 Brower, John.
	Body, John E.	1876 Billings, Frederick.
	Bishop, T. Alston. (L. F.)	1876 Bellew, F. H. T.
	2 Brown, Walston H.	1877 Booth, George.
	Bailey, N. P.	1877 Bixby, Robert F.
	4 Bishop, D. W. (L. F.)	1877 Börs, Christian.
	4 Bien, Julius.	1877 Briggs, Prof. Charles A.
	4 Bartlett, Willard.	1877 Blanchard, George R.
	4 Bissinger, Philip.	1867 Blatchford, Eliphalet W.
		1878 Bliss, Cornelius N.
_	4 Backus, Henry C. 4 Bellin, Eugene S	1878 Brown, G. Melville.
	4 Ballin, Eugene S. 4 Baldwin, Townsond B	1878 Barton, Oliver Grant. (L. F.)
107	4 Baldwin, Townsend B.	TOTO TOTAL COLLEGE (TT. T.)

Fellows. xxiii

1878	Brown, Rev. Philip A. H.	1874	Church, Col. George E.
1878	Brand, James.		Chistern, F. W.
1878	Brown, J. Romaine.	1874	Cockcroft, Jacob H. V.
1879	Brady, James T.	1874	Chickering, Charles F.
1879	Barattoni, C. A.	1874	Comstock, Cornelius.
1879	Bowen, Gen, Edmund S.	1874	Constable, James M.
1880	Bayard, Edward, M. D.	1874	Ceballos, J. M.
	Beach, Miles.		Carter, Walter S.
1880	Bamberger, A. E.	1874	Caswell, Wm. H.
1880	Banks, D. S.		Crerar, John.
1881	Baldwin, Edwin.	1874	Crocker, David.
1881	Babcock, Courtland G.	1874	Cruikshank, Edwin A.
1881	Bartlett, Commander John R.,	1874	Crosby, J. Schuyler.
	U. S. N.	1874	Coates, Isaac T., M.D.
1881	Barber, Charles G.	1874	Cochrane, Capt. Henry Clay,
1881	Brown, Augustus L.		U S. M. C.
1881	Baldwin, Christopher C.	1874	Colgate, James B.
	Babcock, Samuel D.	1874	Constantine, Andrew J.
1881	Ballin, Frederick E.	1874	Corning, Erastus.
1881	Backus, Henry Landon.	1874	Cottenet, Francis.
		1874	Cossitt, Frederick H.
1852	Colton, Joseph H. (L. F.)	1874	Coutan, Charles E.
1855	Conkling, Frederick $\Lambda$ . (L. F.)		
	Cooper, Peter.	1874	Crosby, Hiram B.
1856	Cooley, James E. (L. F.)	1874	Crocker, Geo. A.
	Cooper, Edward.	1874	Crocker, Wm. Baylies.
1856	Crooks, Ramsey. (L. F.)	1874	Chickering, George H.
1863	Cary, William F. (L. F.)	1874	Carter, Oliver S.
	Catlin, N.W. Stuyvesant. (L. F.	)1874	Carhart, Thos. F.
1868	Cisco, John J.		Catlin, Julius, Jr.
	Chapman, Joseph H.		Colgate, Robert,
1869	Cullum, General George W.,		
	U. S. Army. (L. F.)		Clendenin, J. W.
	Conklin, William A.	1875	Cameron, R. W.
1872	Corse, Israel.		Cushman, W. F.
1872	Conklin, Eugene E.	1875	Cooper, George C.
1872	Crawford, General S. W.,	1875	Champlin, John D., Jr.
	U. S. Army.		Cassebeer, Henry A., Jr.
	Clark, E. V.		Chittenden, S. B., Jr.
	Cox, Samuel S.		Clarke, W. H.
	Coster, Charles H.		Cullum, Mrs. George W. (L. F.)
	Cruickshank, James, LL.D.		Constable, Major A. G.
	Connery, T. B.		Cornell, John B.
	Cowdrey, N. A.		Curtis, Benj. L.
	Curphey, James		Curtis, Benjamin R.
1874	Campbell, Allan.	1879	Cooper, James G.

xxiv Fellows.

1879	Church, Simeon E.	1874	Delafield, M. L.
1879	Coddington, Gilbert S.	1874	Dana, Charles A.
1879	Caldwell, R. A., M.D.	1874	Draper, Frank E.
1879	Childs, George W.	1874	Devlin, Jeremiah.
1880	Calvin, Delano C.		Decker, John J.
1880	Clark, Lester W.	1874	Del Monte, Leonardo.
1880	Chamberlain, J. A.	1874	Du Bois, Wm. A.
	Cohen, Maurice S.		De Castro, Diego.
	Cotlins, John C.	1874	Davis, John G.
1880	Cormack, John A.	1874	Dalrymple, Alexander.
1880	Caverley, William.	1874	Dunscomb, Richard T.
1880	Camp, W. A.	1874	Dun, R. G.
1880	Clymer, Edward M.	1874	Defendorf, Wilson.
	Cronly, John E.	1875	Darrow, William.
1881	Chaffee, Jerome B.	1875	Davies, Julien T.
1881	Carnochan, J. M., M.D.	1875	Du Bois, Eugene.
1881	Canfield, Charles B.	1875	Daniel, Edwin M.
1881	Clinton, Henry L.	1875	Davidson, Charles $\Lambda$ .
1881	Chandler, Nathan.	1875	de Peyster, Frederic J. (L. F.)
1881	Coddington, Thomas B.	1875	Delafield, Lewis L.
		1875	Dommerick, L. F.
1855	Daly, Chief-Justice C. P. (L.F.)		Davis, Gilbert F.
1855	Dunshee, Prof. Henry W.	1876	Drexel, Joseph W.
1856	Douglas, Andrew E.	1877	Day, Henry M.
1856	Dodge, Wm. E.	1877	Davis, Joseph Beale. (L. F.)
1856	Dodge, Wm. E., Jr.	1878	Dana, Charles.
1856	Detmold, Wm., M.D.	1878	Di Cesnola, Gen. L. B.
1859	Dickerson, E. N.	1879	Dahlgren, Charles B.
1864	Detmold, Christian E.	1879	Dodge, George E.
1866	Darling, Wm. A.	1879	Dana, Samuel B.
1868	Dwight, Prof. Theo. W.	1880	Davis, Theodore M.
1868	Du Chaillu, Paul B.		Deane, John H. (L.F.)
1868	Dennis, Charles. (L. F.)	1880	Dyckman, Isaac M.
1870	Dash, John B.	1880	Du Bois, James G.
1870	Davies, Alexander J. (L. F.)	1880	Du Bois, Frederick N.
1870	Drowne, Henry T.	1880	Dash, Bowie.
1870	Dinsmore, William B		Dunn, John.
1871	Daly, Joseph F.	1890	Dexter, Henry. (L. F.)
1873	De Peyster, Frederick. (L. F.)		Deen, William M.
1873	Delano, Franklin H.		Dean, F. M.
1874	De Peyster, Gen. J. Watts. (L.F.)	1881	Davies, H. B.
1874	Diefendorf, Menzo.		Docharty, Augustus T. (L. F.)
	Davis, Noah.	1881	Dowd, William.
1874	Dillon, Romaine. (L. F.)		The state of the s
	Dutilh, E.		Evarts, William M.
1874	Decker, Charles A.	1864	Evans, Walton W.

Fellows. xxv

1868	Emmet, Thomas Addis, M.D.	1875 Faile, Charles V.
1872	Edwards, Jonathan.	1875 Fargo, James C.
1874	Eaton, Dorman B.	1875 Fuller, Charles D.
1874	Eaton, D. Cady.	1875 Ford, James B.
1874	Ewen, John, Jr.	1875 Foote, Emerson.
1875	Eldridge, Titus B.	1875 Folsom, George W.
1875	Esterbrook, Richard, Jr.	1876 Fisk, Gen. Clinton B.
1875	Ellis, John W.	1877 Fiske, Andrew.
1875	Elliott, John.	1877 Flagg, William J.
1875	Eimer, Charles.	1878 Ferris, L. Murray, Jr.
1875	Ely, Richard S.	1879 Fellows, John R.
1875	Eads, Captain James B., C.E.	1879 Ferris, Robert M.
	Elderkin, John.	1880 French, Stephen B.
1878	Eno, John C.	1880 Fairchild, George M., Jr.
1878	Ellis, John, M.D.	1881 Fleitmann, Ewald.
1878	Edson, Franklin.	1881 Fairbanks, Joseph H.
1879	Earl, Ferdinand P.	1881 Farrington, E. A.
1879	Elliott, Samuel.	1881 Fearing, Charles F.
	Eckert, Thomas T.	1881 Foote, Frederick W.
1881	Ellis, Ralph N.	1881 Fearing, William H.
1881	Evans, Silas C.	
		1856 Greenwood, Isaac J.
1854	Field, Cyrus W. (L. F.)	1857 Greene, John W., M.D. (L. F.)
1856	Field, David Dudley.	1859 Griswold, George. (L. F.)
1856	Field, B. H. (L. F.)	1860 Graham, James L. (L. F.)
1857	Fish, Hamilton.	1868 Gebhard, Wm. H. (L. F.)
1859	Fogg, Wm. H. (L. F.)	1868 Gerry, Elbridge T. (L. F.)
1860	Field, Rev. H. M.	1868 Green, Andrew H.
1864	Faile, Thomas H.	1868 Greene, Gen. G. S.
1868	Frohwein, Theobald.	1869 Gilbert, Clinton.
1869	Forsyth, Rev. John.	1872 Gerard, James W.
1871	Fliess, Wm. M.	1872 Grinnell, R. M. (L. F.)
1873	Freedman, John J.	1873 Gillmore, Gen. Q. A., U.S.A.
1873	Fithian, Freeman J.	1873 Gedney, Frederick G.
1874	Farragut, Loyall.	1873 Glaubensklee, Theo. G.
	Foshay, James W.	1874 Gardner, Hugh.
1874	Fabbri, Egisto P.	1874 Green, John. (L. F.)
	Fellows, John P.	1874 Gunther, William Henry.
1874	Francklyn, C. G.	1874 Gunther, F. F.
1874	Fleet, Oliver S.	1874 Gibert, Fred. E.
	Fatman, Lewis.	1874 Gibbs, Theodore K.
	Forman, Alexander.	1874 Gottsberger, William S.
	Fox, Baldwin N.	1874 Galpen, Horace.
	Fougera, Edmund C.	1875 Greene, Lieut. F. V., U.S.A.
	Fox, Austen G.	1875 Gordon, Robert.
1875	Foulke, Thomas.	1875 Greene, G. S., Jr., C.E.

xxvi Feilows.

1875 Garrison, Cornelius K.	1874 Hay, John.
1875 Gibson, James.	1874 Hitchcock, Rev. Roswell D., D.D.
1875 Goepp, Charles.	1874 Havemeyer, Hector C.
1876 Gautier, Dudley G.	1874 Hoguet, Henry L.
1877 Gaylord, Augustus.	1874 Hoyt, Oliver.
1877 Guleke, H. F., M.D.	1874 Hurlbert, Henry Λ. (L. F.)
1878 Gillies, James W.	1874 Hutton, Benjamin H.
1878 Garrison, William R.	1874 Haydock, George G.
1879 Graves, Arthur B.	1874 Haines, John P.
1879 Gay, Joseph E.	1874 Hinton, John H., M.D. (L. F.)
1880 Graeff, Albert I.	1874 Hendricks, M. M.
1880 Gorringe, Lt. Comdr. Henry H.,	1874 Hawk, Samuel.
U. S. N.	1874 Havemeyer, James.
1880 Gunning, William J.	1874 Holbrook, E. F.
1881 Gallaway, R. M.	1874 Hoe, Richard M.
1881 Gomez, Λ.	1874 Harper, Nathan.
1881 Green, George. (L. F.)	1874 Hunter, Charles F.
1881 Giles, John C.	1874 Hendricks, Edmund.
1881 Grace, William R. (L. F.)	1874 Hendricks, Joshua.
1881 Garland, James A.	1874 Hatch, Rufus.
1881 Gallatin, James.	1874 Huntington, C. P. (L. F.)
	1874 Hunter, Lieut. Edward, U.S.A.
1856 Hewitt, Abram S.	1874 Hoyt, Harlow M.
1856 Hunt, Wilson G.	1875 Hubbard, Prof. O. P.
1858 Holton, David P., M.D. (L. F.)	
1859 Henderson, John C.	1875 Houston, Col. D. C., U.S.A.
1859 Havemeyer, John C. (L. F.)	1875 Howell, Maj. Charles W., U.S.A.
1864 Hammond, Henry B.	1875 Hoadley, John C.
1868 Huntington, Daniel. (L. F.)	1875 Hughes, Wm. H. T.
1868 Hurlbert, William H.	1875 Hoppenstedt, G. L.
1868 Hoguet, Robert J.	1875 Hanemann, John F.
1868 Hall, Elial F.	1875 Howland, Meredith.
1868 Hadden, John A. (L. F.)	1875 Hyde, Henry B.
1868 Hallock, Mrs. Frances.	1875 Harper, P. J. A.
1870 Hawkes, Prof. W. Wright.	1875 Hazen, Gen. W. B., U.S. Army.
1870 Havens, Charles G.	1875 Harris, Siegmund
1870 Harrison, Prof. Thomas F.	1875 Hun, Leonard G.
1871 Hamilton, Alexander, Jr.	1876 Heminway, Albert G.
1871 Hand, Clifford A.	1876 Holt, Henry.
1872 Hammersley, John W. (L. F.)	1876 Hallock, Henry W.
1872 Hawkins, Dexter A.	1876 Halsted, Major Geo. B.
1872 Holbrook, Levi.	1876 Holman, Frank E.
1873 Havemeyer, Theo. A.	1876 Hoes, Wm. M.
1874 Hamersley, A. Gordon. (L. F.)	1876 Hatfield, J. B. T.
1874 Hamersley, Louis C. (L. F.)	1877 Houghton, Prof. Walter R.
1874 Hancock, Gen. Winfield S., U.S.A	1010 Howe, George 5.

Fellows. xxvii

1878 Hermann, Henry. (L. F.)	1881	Johnson, Bradish, Jr.
1878 Hinman, Wm. K.		
1878 Holden, Horace.	1854	Kennedy, Robert Lenox.
1878 Hitchcock, Hiram.	1869	Kelly, Eugene.
1879 Hamilton, William G.	1870	Kühne, Frederick.
1879 Harris, Col. Robert.	1872	Kendrick, Col H. L., U. S Army.
1879 Hayes, Λ. Λ., Jr.	1873	Kennan, George.
1879 Hamilton, Capt. F. B., U.S.A.	1874	King, Edward.
1880 Hall, Hayden H.		Kearney, Joseph R
1880 Howard, William Lee.	1874	Kunhardt, Henry R.
1880 Hickox, Charles R.	1874	Kingsland, Wm. M. (L. F.)
1881 Hinman, Russell.	1874	Kidder, Henry P. (L. F.)
1881 Henderson, Thomas, Jr.	1874	Kalbfleisch, Charles H.
1881 Hunt, Rev. M. A., O. M. I.	1874	Keck, Thomas.
1881 Hoffman, Charles B.	1874	Kemp, William
1881 Hamilton, Robert Ray.	1874	Knower, John.
1881 Haven, George Griswold.		King, David, Jr.
	1875	Knapp, Herman, M.D.
1859 Ireland, John B.	1876	Knauth, Percival.
1874 Ives, Fred'k E.	1877	King, Clarence.
1874 Iselin, Adrian, Jr.		Kane, Gen. Thomas L.
1879 Inman, William H.	1878	Kernochan, Jas. Lorillard
1879 Isham, Charles H.		(L. F.)
1881 Ives, Brayton. (L. F.)	1879	Kane, S. Nicholson.
	1880	Kidder, A. S., M. D.
1852 Jay, John. (L. F.)	1880	Keene, James R (L. F.)
1852 Jones, John D. (L. F.)	1881	Kennedy, John S. (L. F.)
1868 Johnson, Hezron $\Lambda$ .	1881	Kane, Grenville. (L. F.)
1871 Jones, Walter R. T.	1881	Kirsch, Louis.
1874 Judson, Wm. D.		
1874 Janssen, Gerhard.	1852	Livingston, Cambridge. (L. F.)
1874 Jesup, M. K. (L. F.)		Low, A. A.
1874 Jaffray, Edward S.	1859	Lathers, Richard. (L. F.)
1874 Jenkins, Wm. L.	1868	Lawrence, Abraham R.
1874 James, D. Willis.	1869	Lawrence, John S. (L. F.)
1874 Jameson, Joseph Λ.	1870	Loew, Frederick W.
1874 Jordan, Conrad N.	1870	Lyman, Edward H. R.
1874 Jones, George.	1871	Letson, Robert S.
1874 Jaffray, Robert.	1871	Larremore, Richard L.
1878 Jones, George H.		Lee, Ambrose.
1878 Judson, Capt. J. A., C.E.	1872	Libbey, William. (L. F.)
1879 Jay, William.		Lauterbach, Edward.
1880 Jones, Frederick W.		Livingston, Robert J. (L. F.)
1880 Jewett, George L.		Langdon, Walter. (L. F.)
1880 Jenkins, Silvanus F.		Lorillard, Peter.
1881 Jewett, Hugh J.	1874	Lorillard, George L.

xxviii Fellows.

1874	Livingston, John A.	1868	McClure, George.
1874	Livingston, Robert E.	1869	Moore, Henderson
1874	Littlejohn, James.		Marbury, Francis F.
1874	Lawton, Walter E.	1870	Murray, D. Colden.
	Lawrence, Jos. B.		Miles, Edward D.
	Leggett, Francis W.		Myer, F. William.
	Le Comte, Joseph.	1872	Matthews, Edward, (L. F.)
	Lewis, Walter H.	1872	Marié, Peter. (L. F.)
	Lawson, Leonidas M.	1873	Moore, C. B.
	Lane, George W.		Morris, Henry L.
	Lawrence, Samuel B.		Mailler, W. H.
	Lesher, Stephen R.		Marble, Manton.
	Low, Seth.		Morrison, Edward.
	Lawrence, George N.	1874	Morgan, W. F.
	Low, A. Augustus.		Miller, Philip S.
	Lindau, Leopold.		Moir, James.
	Lockwood, Le Grand.	1874	Morgan, J. Pierpont. (L. F.)
	Latrobe, John H. B.		Myers, John K.
	Loubat, J. F., LL.D. (L. F.)		Martin, John M.
	Leon, Nestor Ponce de.		McAlpine, David H.
	Levy, Augustus H.		Merrall, William J.
	Lang, Alexander.		Moulton, Clarence F.
	Learned, Edward.		Miller, Geo. Macculloch.
	Lee, William H.		Mitchell, Edward.
	Libbey, William, Jr. (L. F.)		Macy, Arthur.
	Langdon, Woodbury G. (L. F.)		Marcus, Arnold.
	Little, Joseph J.		Meyer, Theo. F. H.
	Livermore, Edwin R.		Mott, Henry A., Jr.
	Lee, J. Bowers.		Monheimer, Joseph A.
	,		Magoun, George C.
1852	Myers, Col. T. Bailey. (L. F.)	1875	Maclay, Moses B.
	Moore, George H. (L. F.)		Martin, Bradley.
	Morgan, E. D.	1875	Meyer, L. H.
1856	Monroe, Ebenezer.	1875	McLanahan, Geo. William.
1856	Manners, David S.	1876	Mitchell, W. Howard.
	MacMullen, John.	1876	Mattson, Morris, M.D.
	Morrell, Wm. H. (L. F.)		Matsell, George W.
	Moore, Frank. (L. F.)	1878	Morison, John C.
1863	May, Lewis.	1878	Merrick, William H.
1863	Moore, W. H. H. (L. F.)	1878	Montant, Alphonse.
1864	Morton, Levi P.		Musgrave, Thomas B. (L. F.)
1868	Morrison, Henry.	1878	${\bf Mason, Lieut. T.B. M., U.S. N. (L. F.)}$
	Moreau, John B.		Marshall, William I.
1868	Martin, Isaac P.		Mather, Frederick E.
1868	Marquand, Henry G.		Motz, Ferdinand.
1868	Marsh, Luther R.	1879	Miller, John Bleecker.

Fellows. xxix

1879	Montieth, James.	1871	Peabody, Charles A.
	Mills, D.O. (L. F.)	1872	Parish, Henry.
	Mason, Thomas D.		Plum, Elias.
1880	Mackenzie, Lieut. M. R. L., U.S. N.	1874	Parker, Willard, M.D.
	Massey, William M.		Peake, William I.
1881	McGee, Flavel.	1874	Peabody, Arthur J.
			Penfold, William Hall.
1870	Neilson, William H.	1874	Phelps, I. N.
1873	Neilson, Frederic.		Potter, Orlando B.
	Newell, John.		Pondir, John.
1874	Niles, William W.		Paris, Sherman.
	Newcombe, Isaac B.		Preble, John Q.
	Northrop, A. L.		Porter, John K.
1880	Nelson, William, Jr.		Packer, Elisha A.
			Powers, George J.
	Ottendorfer, Oswald. (L. F.)		Pellew, Henry E.
	Osgood, Franklin.		Prichard, William M.
	Olyphant, Robert M.		Prentice, W. P.
	Oakley, E. Benedict.		Pope, Gen. John, U. S. Army.
	Owen, Frederick N.		Pfund, Anton.
	Otterbourg, Marcus.		Peipers, Hugo.
	Ottiwell, John D.		Porter, Gen. Horace.
	O'Connor, Thomas H.		Perkins, George W.
	Opdyke, William S. (L. F.)		Parsons, Levi.
	Olmsted, Fred'k Law.		Plum, James R.  Pelmer Gen W. I.
	Olmstead, Dwight H.		Palmer, Gen. W. J.
	O'Gorman, Richard.		Parsons, Edwin. Pinchot, James W.
	Ogden, Isaac C., Jr. Osgood, Prof. Howard.		Powell, Wilson M.
	O'Gorman, Richard, Jr.		Post, Charles A.
	O'Brien, Thomas S.	1001	1 000, Onorios 11.
	O'Shaughnessy, John W. (L. F.)	1854	Butherford, L. M.
	Oakley, Henry A.		Randolph, Anson D. F.
100/1	Cultiog, IIIII III		Remsen, William. (L. F.)
1852	Prime, Frederick. (L. F.)		Riker, John H.
	Poor, Henry V. (L. F.)		Rapallo, Charles A.
	Pierrepont, Henry E. (L. F.)		Reckendorfer, Joseph. (L. F.)
	Pierrepont, Edwards.		Rogers, C. B. (L. F.)
	Pyne, Percy R.		Raven, Anton A.
	Purser, George H.		Rose, Cornelius.
	Prime Fred'k E. (L. F.)		Robbins, Chandler. (L. F.)
	Phelps, Royal. (L. F.)		Reinhart, B. F. (L. F.)
	Phillips, George W.		Reid, Whitelaw.
	Powers, William P.		Rives, Francis R.
1868	Paulison, John P.		Richard, Auguste.
1871	Potter, Howard.	1874	Rogers, H. Livingston.

xxx Fellows.

1874	Riker, William J.	1871	Swan, William H.
1874			Stern, Myer.
	Reynes, Jaime.		Stengel, Prof. Frederick.
	Rhoades, John H.	1872	Steiger, E.
	Ramsey, Charles G.	1872	Stuyvesant, Rutherfurd. (L. F.)
1874	Ransom, F. A.		Smith, James M.
1874	Rhoades, Lyman.	1873	Slevin, Thomas E.
	Roosevelt, Clinton.	1873	Sturges, Frederick.
1875	Rives, G. L.	1873	Spencer, James C.
1875	Roberts, Nathan B.	1873	Scott, Julian. (L. F.)
1875	Read, J. Meredith.		Southworth, Alvan S. (L. F.)
	Rose, Charles.	1873	Sturgis, Frank K. (L. F.)
1875	Rosenfeld, Isaac.	1874	Sands, Harry M.
1876	Ross, William B.	1874	Steinway, William.
1877	Rose, Theodore.	1874	Storrs, Charles. (L. F.)
	Rice, A. Thorndike.	1874	Sands, Philip J.
	Roome, William P.		Smith, Samuel Drake.
	Roorback, Orville A.	1874	Sloan, Samuel.
	Rainey, Thomas, M.D.		Schermerhorn, F. Augustus
	Redmond, James Morton.		Stuyvesant, Robert R.
	Rhinelander, Miss J (L. F.)		Scott, Col. Henry L.
	Robinson, Mrs. John A. (L. F.)		
	Randolph, J. C. F.		Stuart, Joseph.
			Stokes, James.
1881	Rhinelander, Frederick W.		Strong, W. L. (L.F.)
			Steward, D. Jackson.
	Smith, James O., M.D.		Stevens, Alexander Henry.
	Sewell, Henry F.		Sherman, Benjamin B.
	Stuart, Robert L.		Shethar, Samuel.
	Spofford, Paul N.		Sheafe, J. F.
1856	Schermerhorn, Wm. C.		Schieffelin, Samuel B.
	Sherman, W. Watts.		Stiger, William E.
	Schell, Augustus (L. F.)		Stillwell, Benjamin M.
	Schultz, John H. (L. F.)		Sawyer, Warren.
	Stout, Francis A. (L. F.)		Sands, Andrew H.
	Seward, Clarence A.		Schaus, William.
	Shea, George.		Simpkins, N. S., Jr.
	Savage, John (L. F.)		Spinney, Joseph S.
	Strebeigh, Robert M.		Salomon, Edward.
	Schell, Richard. (L. F.)		Sewell, Robert.
	Sherwood, John.		Striker, J. A. Stanford, William II
	Schafer, Samuel M.		Stanford, William II.
	Schafer, Simon.		Smith, Lewis Bayard.
	Seligman, James.		Smith, Charles Stewart. Stewart, Col. Charles S., U.S.A
	Seligman, Jesse.		Sturges, Henry C.
1011	Shaler, Gen. Alexander.	1010	bunges, memy C.

Fellows. xxxi

1875 Schultz, Carl H.	1880 Savery, Bartlett M.
1875 Sandford, Elliott. (L.F.)	1880 Shepherd, Sherringham A.
1875 Stranahan, J. S. T.	1881 Stone, Joseph F.
1875 Schofield, Gen. John M., U.S.A	
1875 Schieffelin, H. Maunsell.	1856 Tiffany, Charles L.
1875 Sibley, Gen. Henry H., U.S.A.	
1875 Schiff, Jacob H.	1859 Tracy, Charles.
1875 Strazburger, Oscar	1868 Taylor, Douglas.
1875 Schlesinger, Alfred.	1868 Tilden, Samuel J.
1875 Smith, Apollos.	1870 Tuckerman, Lucius.
1875 Smith, Augustine.	1870 Thomson, James.
1876 Smith, Harsen H.	1872 Tower, Gen. Z. B., U. S. Army.
1876 Sibley, Hiram W.	1874 Thompson, David G. (L. F.)
1876 Spaulding, Henry F.	1874 Tiemann, Peter C.
1876 Smith, Dwight, M.D.	1874 Tefft, Erastus T.
1876 Stryker, Gen. William S.	1874 Thorne, Jonathan.
1876 Stone, A.B.	1874 Trevor, John B.
1877 Schuyler, Philip.	1874 Taylor, Alfred J.
1877 Shearman, William P	1874 Thorne, William H.
1877 Sanford, Henry S.	1874 Turner, Herbert B.
	. 1874 Terry, Com'r Edward, U. S. N.
1877 Schaff, Rev. Philip, D.D.	1875 Taintor, Charles M.
1878 Scott, James.	1875 Terry, Gen. Alfred H., U.S. Army.
1878 Stewart, William Rhinelander.	1875 Toel, William.
1878 Sanford, A. Wright.	1875 Terbell, Henry S.
1878 Sands, William R.	1876 Tappan, J. Nelson.
1878 Smith, S. Newton.	1876 Totten, Lieut. George Mansfield,
1878 Smull, W. P.	U. S. Navy.
1878 Sabla, Theodore de Joly de.	1876 Terry, Rev. Roderick.
1879 Saltus, Edgar Evertson.	1877 Tillinghast, William H. 1877 Talcott, James. (L. F.)
1879 Simion, Leonhard.	1877 Talcott, James. (L. F.) 1877 Tucker, Rev. William J., D.D.
1879 Smith, Herbert H.	1878 Taylor, Rev. Wm. M., D.D.
1879 Stone, R. C.	1879 Thompson, J. P.
1879 Speir, Francis, Jr.	1879 Turnbull, Robert J.
1879 Stevens, Frederick W. (L. F.) 1879 Smith, E. Reul. (L. F.)	1880 Tailer, William H.
1879 Shields, Prof. Charles W.	1881 Thompson, R. H.
	1881 Travers, J. P.
1879 Stetson, Francis Lynde.	1881 Taylor, A. D.
1879 Squires, Grant.	
1879 Spencer, Mrs. Catherine L. (L. F. 1880 Southwick, Henry K.	1854 Viele, Gen. Egbert L.
1880 Starr, Theodore B.	1868 Van Santvoord, C.
1880 Suydam, John R., Jr.	1869 Vanderpoel, Aaron J.
1880 Smythe, Henry.	1870 Van Brunt, Charles H.
1880 Stark, L. J. N.	1874 Voorhis, William.
1880 Stokes, George H.	1874 Vanderbilt, William H.
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xxxii Fellows.

1874	Vincent, Frank, Jr.	1874	Wilder, Marshall P.
1874	Van Rensselaer, K.		Walraven, Ira E.
	Vance, Samuel B. H.		Wooster, George H.
1875	Van Buren, John D., Jr.		Work, J. Henry.
1875	Valentine, Lawson.		Wheeler, John V.
	Von Post, H. C. (L. F.)		White, Charles Trumbull.
1875	Vanderpoel, A. Ernest.		Wilcox, Franklin A.
1875	Verhuven, Henry F.		Wilkes, George.
1876	Van Hoesen, George M.	1875	Warner, Lewis T., M.D.
	Van Brunt, Cornelius.		White, David, C.E.
	Vanderbilt, Cornelius.		Winslow, Gen. Edward F.
1877	Voorhees, Charles H.	1875	Whitehead, Com'r Wm., U.S.N.
1878	Vanderbilt, William K. (L. F.)	1875	White, Loomis L.
1878	Voorhis, John R.		Wissman, J. F.
1880	Von Hesse, Christern.	1876	Walker, Evan T.
1880	Van Alen, James H.	1876	Wedemeyer, A. J. D.
1880	Van Tassell, Frank L.	1876	Wrigley, Henry E., C.E.
1881	Vantine, A. A.	1877	Ward, W. S.
		1877	Waters, James T.
1854	Webb, William H.		Woodruff, Col. D., U.S.A.
1854	Wetmore, Samuel. (L. F.)	1878	Whitehead, Henry M.
1854	Witthaus, G. H. (L. F.)		Witherbee, S. H.
1859	Ward, George Cabot. (L. F)	1878	Wood, Isaac F.
1860	Winston, Frederick S.	1878	Watson, William.
1866	Wendell, Jacob.	1878	Whittemore, Charles.
1868	White, Alexander M.	1878	Whittemore, Thomas W.
1869	Weber, Leonard, M.D.	1879	Williams, Richard P.
1870	Webster, Sidney.	1879	Watson, Francis A. (L. F.)
1870	Wilson, Gen. Jas. Grant. (L. F.)	1879	Woodbury, Charles H.
1870	Wright, E. Kellog.	1879	Wirths, Maurice.
1870	Weston, Theodore, C.E.	1879	Wolfe, Miss Catherine. (L. F.)
1870	Ward, T. W.	1880	Ward, Samuel. (L. F.)
1872	Wetmore, Wm. Boerum. (L. F.)	1880	Williams, R., Jr.
1872	Williams, Stephen C. (L. F.)	1880	Wilson, James.
1872	Wells, Jacob.	1881	Wilson, John.
1873	Weiner, Joseph, M.D. (L. F.)	1881	Whitehouse, Frederic C.
1874	Weyman, Charles S.		
1874	Waite, Chief-Justice M. R.	1871	Youngs, Henry I.
1854	Wheeler, Everitt P.		Young, Mason.
	Wadsworth, Julius.		Yates, Ellis Samuel.
1874	Wetmore, George P. (L. F.)	1880	Young, William.
	Willets, Samuel.		
1874	Wyckoff, Jacob F.	1875	Zollikoffer, Oscar.

#### FELLOWS DECEASED, 1881.

1874 Appleton, John A.

1870 Bell George.

1859 Boardman, Andrew.

1876 Bowne, Richard H.

1876 Buell, James.

1879 Bronson, Theodore B.

1872 Bryce, James.

1874 Constantine, John.

1868 Davies, Henry E.

1874 Delmonico, L.

1881 Dodge, Colonel John A.

1874 Downer, Samuel.

1856 Herring, Silas C.

1868 Hayes, Dr. Isaac Israel.

1868 Johnson, Henry W.

1873 Lydig, Mrs. P. M.

1875 Michler, Gen. Nathaniel, U.S.A.

1874 Phœnix, S. Whitney.

1874 Popham, William H.

1878 Rogers, Charles H.

1854 Ruggles, Samuel B.

1856 Stebbins, Henry G.

1874 Scott, Thomas A.

1875 Sherman, Isaac.

1880 Saville, Dr. H. M.

1880 Sabin, Joseph.

1872 Tracy, William.

1875 Uhl, Herman.

1874 Vail, Henry F.

### CORRESPONDING MEMBERS, DECEASED 1881.

Collins, Lieut. Frederick, U.S.N. Morgan, Lewis H.

Roberts, General Wm. M. Van Benthuysen, Charles

List of Foreign and Domestic Geographical and other Scientific Bodies with whom this Society is in communication and constant exchange of publications.

Academia Real das Sciences, Lisbon, Portugal.

Academy of Natural Sciences, Philadelphia, Pa.

Academy of Natural Sciences, Davenport, Iowa.

Academy of Sciences, St. Louis, Mo.

Academy of Natural Sciences, Minneapolis, Minn.

American Antiquarian Society, Worcester, Mass.

American Naturalist, Salem, Mass.

American Social Science Association, Detroit, Mich.

Astor Library, New York.

Bibliotheca Nacional, Rio Janeiro, Brazil.

Boston Society of Natural Sciences, Mass.

Bureau of Education, Washington, D. C.

Caucasian Geographical Society, Tiflis, Russia.

Central Bureau of Statistics, Stockholm, Sweden.

Charleston Library Society, Charleston, S. C.

Circolo Geografico Italiano, Turin, Italy.

Commissão Central Permanente de Geographia, Lisbon, Portugal.

Cornwall Library, Cornwall-on-the-Hudson, N. Y.

Cosmos; Guido Coro, Turin, Italy.

Essex Institute, Salem, Mass.

Etablissement Géographique de Bruxelles, Belgium.

Ferdinandeum in Innspruck, Austria.

Geographical Society of the Pacific, San Francisco, Cal.

Geographical Society, Lyons, France.

Geographical Society, Rio Janeiro, Brazil.

Geographical Society, Hamburg, Germany.

Geographical Society, Amsterdam, Holland.

Geographical Society, Marseilles, France.

Geographical Society, Munich, Germany.

Geographical Society, Dresden, Germany.

Geographical Society, Hermannstadt, Austria.

Geographical Society, Hanover, Germany.

Geographical Society, Copenhagen, Denmark.

Geographical Society, Bremen, Germany.

Geographical Society, Madrid, Spain.

Geographical Society, Weimar, Germany.

Geographical Society, Bombay, India.

Geographical Society, Quebec, Canada.

Geographical Society, Metz, Germany.

Geographische Anstalt, Gotha, Germany.

Geological Society, Edinburgh, Scotland.

Geological Survey, Ottawa, Canada.

Gesellschaft für Erdkunde zu Berlin, Germany.

Gewerbeschule, Bistritz, Austria.

Historical Society, Iowa City, Iowa.

Historical Society, Madison, Wis.

Hungarian Academy of Sciences, Pesth, Hungary.

Hydrographic Office, The Admiralty, London.

Imperial Russian Geographical Society, St. Petersburg.

Imperial Royal Academy of Sciences, Vienna.

Imperial Geographical Society, Vienna.

Instituto Historio Geografico del Rio de la Plata, Buenos Aires, S. A.

Instituto Geografico Argentino, Buenos Aires.

Institut Géographique International, Berne, Switzerland.

Kais. Königl. Geologische Reichsanstalt, Vienna.

Köngl. Gesellschaft der Wissenschaften, Göttingen, Germany.

König-Sächs. Gesellschaft der Wissenschaften, Leipzig, Germany.

L'Exploration, Paris.

Library of Congress, Washington, D. C.

Library Department of State, Washington, D. C.

Literary and Philosophical Society, Liverpool.

Literary and Philosophical Society, Manchester, England.

Literary and Historical Society of Quebec, Canada.

Long Island Historical Society, Brooklyn, N Y.

Melbourne Observatory, Melbourne, Australia.

Ministère de l'Agriculture, de l'Industrie et du Commerce, Rome, Italy.

Museo Nacional de Mexico, Mexico.

Mexican Geographical and Statistical Society, Mexico.

Natural History and Philosophical Society, Belfast, Ireland.

Nature, London.

Naval Institute, Annapolis, Md.

Naturforschende Gesellschaft, Emden, Germany.

N. Y. State Museum of Natural History, Albany.

N. Y. State Library, Albany.

North-China Branch of the Royal Asiatic Society, Shanghai.

Philosophical Society, Wellington, New Zealand.

Polymathic Society, Vannes, France.

New York Academy of Sciences, New York.

New York Historical Society, New York.

Pulkowa Observatory, Pulkowa, Russia.

Real Academia Española Arqueologica y Geografica, Madrid, Spain.

Revue de Géographie, Paris.

Revue Géographique, 37 Rue Scheffer, Paris.

Roumanian Geographical Society, Bucharest.

Royal Geological Society, Dublin, Ireland.

Royal Society of Victoria, Melbourne, Australia.

Royal Danish Academy of Sciences, Copenhagen, Denmark.

Royal Geographical Society, London.

Royal Academy of Sciences, Munich, Germany.

Royal Society of Sciences, Upsala, Sweden.

Royal Prussian Statistical Bureau, Berlin.

Royal University, Christiania, Norway.

Royal Society, London.

Royal Cornwall Polytechnic Society, Cornwall, England.

Royal Academy of Sciences, Brussels, Belgium.

Royal Institute for Philology, Geography and Ethnography of Dutch India, The Hague, Holland.

Royal Dutch Meteorological Institute, Utrecht, Holland.

Royal Hungarian University, Pesth, Hungary.

Royal Asiatic Society, London.

Section of the Imperial Russian Geographical Society, Orenburg,

Smithsonian Institution, Washington, D. C.

Sociedade de Geographia, Lisbon, Portugal.

Société de Geographie, Geneve, Switzerland.

Société de Geographie, Lille, France.

Société de Geographie, Toulouse, France.

Société de Geographie, Rochefort, France.

Société Belge de Geographie, Antwerp, Belgium.

Società Geografica Italiana, Rome.

Société de Geographie, Paris.

Société Khédiviale de Geographic, Cairo, Egypt.

Société Belge de Geographie, Brussels, Belgium.

Société des Sciences Naturelles, Cherbourg, France.

Société de Géographie Commerciale, Bordeaux, France.

Societé Normande de Géographie, Rouen, France.

Société de Géographie de Montpelier, France.

Société Suisse de Topographie, Geneve, Switzerland.

Society of Natural Sciences, Buffalo, N. Y.

State Library, &c., Boston.

Statistical Society, London.

Statistische Amt des Deutschen Reichs, Berlin.

The Academy, London.

The Asiatic Society, Yokohama, Japan.

The Japan Gazette, Yokohama, Japan.

U. S. Military Academy, West Point, N. Y.

Poughkeepsie Society of Natural Science, Poughkeepsie, N. Y.

Toukiyan Geographical Society, Tökio, Japan.

U. S. Geological Survey, Washington, D. C.

United States Coast Survey, Washington, D. C.

Verein für Erdkunde, Darmstadt.

Verein für Geographie und Naturwissenschaften, Kiel, Germany.

Verein von Freunden der Erdkunde, Leipzig, Germany.

Victoria Institute, or Philosophical Society of Great Britain, London.

Zeitschrift für Geographie, Lahr, Baden, Germany.

## PART I.

### TRANSACTIONS

OF THE

SOCIETY FOR THE YEAR 1881.

### Part II.

## PAPERS READ BEFORE THE SOCIETY

**DURING 1881.** 

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